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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,869	10/23/2001	Lee S. Mighdoll	14531.5.5.1	9062

7590 11/21/2003

WORKMAN, NYDEGGER & SEELEY  
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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 11/21/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/037,869

Applicant(s)

MIGHDOLL ET AL.

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/31/03.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***DETAILED ACTION***

1. This communication is in response to amendment filed 3/31/03, claim 1 has been canceled, and claims 2-45 remain pending. Claims 2-45 have been examined as hereby set forth.

2. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. §120 and/or 121 for this application as: a continuation of application 09/095,457 filed 06/10/98 now patent 6,311,197, a continuation in part of application 08/656,924 filed 06/03/96 now patent 5,918,013, and a continuation in part of application 08/660,087 filed 06/03/96 now patent 5,896,444. Claimed priority appears in the Application Data Sheet in compliance with 37 CFR 1.78.

3. Applicant's remarks (footnotes on page 15) indicating that claims (2-45) should have been presented as preliminary amendment instead of amendment filed 10/23/01 consisting of claim 1, have been considered. The present office action although should have typically been made final is a Non-Final office action.

***Claim Rejection***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 38-45, 29-37 and 20-28 are rejected under 35 U.S.C. 102(e) as being anticipated by GEHR et. al. U.S. Patent No. 5,828,847 (referred to as Gehr hereafter).

Regarding claim 38, Gehr teaches substantial features of the invention as claimed, teaching a networked computer system (Fig. 1) comprising a plurality of service providers (S1-S4) that may be accessed by a plurality of client systems (C1-C11) through a network (N1 and N2), a method of balancing workload among the plurality of service providers (abstract and col 2/lines 27-35) the method comprising acts of:

for a particular client system, identifying one or more services that can be accessed by the particular client system (Gehr: identify server see col 5/lines 62-65, accessible servers see col 4/lines 14-24 and 54-64, for that particular client system see col 12/lines 12-24 and col 5/lines 62-65, name of service represented by a server col 2/lines 45-48);

for each of the one or more services that can be accessed by the particular client system, identifying one or more available service providers based at least in part on loading conditions at the one or more available service providers (Gehr: list base on load balancing see col 6/lines 6-15, list identifies server availability as load varies col 9/lines 39-46, identify service providers including alternate servers based on load balancing col 8/lines 59-col 9/line 11).

creating a list comprising the one or more services and the one or more available service providers for each of the one or more services (Gehr: created list see col 3/lines 17-26, created/updating list see col 5/lines 63-col 6/line 11); and

sending to the particular client system, the list comprising the one or more services and the one or more available service providers for each of one or more services so that the client system can use the list in accessing the one or more services (Gehr: server populate the client with list, i.e. sending see col 4/lines 25-34, server writing list entries in the client, i.e. sending see col 9/lines 39-46, using list to access service see col 4/lines 50-64, client access service via a request using list see col 6/lines 16-26).

Regarding claim 39, wherein the list of one or more services comprises at least one of (i) a service name for each service in the list of one or more services (Gehr: name or data which identifies each server see col 5/lines 67-col 6/line 2).

Regarding claim 40, sending an updated list of one or more services to the particular client system (Gehr: server populate the client with list, i.e. sending see col 4/lines 25-34, server writing list entries in the client, i.e. sending see col 9/lines 39-46, list is specific to the client see col 4/lines 20-24).

Regarding claim 41, wherein sending the updated list of one or more services is at least in part due to at least one of (i) a service or service provider becoming unavailable, and (ii) a new service or service provider coming one line (Gehr: list reflect additional servers see col 45-48, list is a function of

changes/configuration in the system see col 3/lines 17-26, and col 5/lines 11-13, updated list to client see col 4/lines 25-34, list indicates unavailable server see col 6/lines 26-35).

Regarding claim 42, wherein sending the updated list of one or more services is due at least in part to dynamic loading conditions (Gehr: identify server availability as load varies col 9/lines 39-46, identify service providers including alternate servers based on load balancing col 8/lines 59-col 9/line 11).

Regarding claim 43, sending an updated list of services to the client system, whereby the one service introduces another service to the client system, the one service and the introduced service being within the same chain of trust (Gehr: sending list to client, thereby the one service of providing an update list of services introduces another service to the client (Gehr: server populate the client with list, i.e. sending see col 4/lines 25-34, using list to access service see col 4/lines 50-64, client access service, generating a request using list see col 6/lines 16-26, services in the list includes a primary and an alternate having the same service as a retry of the primary, i.e. "same chain of trust" or equally accessible see col 5/lines 25-37).

Regarding claim 44, wherein the list of one or more services comprises at least two service entries, each having a unique name, and wherein the at least two service entries refer to the same service (Gehr: list identifies, that is the name are unique, a primary server and successive alternate servers see col 2/lines 56-60, primary and alternate provide the same service see col 5/lines 25-37).

Regarding claim 45, however Gehr is silent regarding one of the services being E-mail;

Official Notice (see MPEP § 2144.03 Reliance on "Well Known" Prior Art) is taken that electronic mail (E-mail) was old and well known in the art at the time the invention was made. Given Gehr's teachings for providing maximum server (services) availability and reliability to client processes. One ordinary skilled would have considered the applicability of these teachings to services particularly those provided in client-server systems, therefore E-mail services would have been readily apparent. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to include E-mail services in the Gehr's system, motivation would be provide a adequate level of service and availability in event of system failure via load balancing techniques, particularly need at E-mail server systems which receive large amounts of fluctuating traffic, for sharing an increase in activity or the failure of a server(s), thereby ensuring reliability and extending the life of the systems hardware (see pertinent prior art below, reference C).

Regarding claim 29, comprises limitations substantially the same as in claim 39, same rationale of rejection is applicable. Gehr teaches a server system (Fig. 1) comprising a plurality of remote service providers (S1-S4) accessible to a plurality of client systems (C1-C11) through a network (N1,N2), a method of improving access to any of one or more services provided by the plurality of remote service providers (col 2/lines 27-35), the method comprising acts of:

- at a log-in service, receiving a log-in request from a client system (Gehr: receiving at a server providing access to services, i.e. "a log-in service" see col 4/lines 41-64);

- at the log-in service, creating a list of one or more services that can be accessed by the client system, and for each service in the list of one or more services (Gehr: create list see col 3/lines 17-26, create/update list see col 5/lines 63-col 6/line 11);

- identifying one or more available service providers so that if an available service provider for a requested service becomes unavailable, the client system can look to any other available service provider that is listed for the requested service (Gehr: traversing the list for identity of alternate server, if primary unresponsive see col 4/lines 50-64, if the primary serve becomes unavailable alternate server(s) from the list are used see col 6/lines 16-45, access alternative available server from list upon failure see col 6/lines 59-col 7/line 16, 35-38); and

- sending to the client system, the list of one or more services and the one or more available service providers for each of one or more services in the list so that the client system can use the list of one or more services in accessing the requested service (Gehr: server populate client with list see col 4/lines 25-34, writing entries in client see col 9/lines 39-46 using list to access services see col 4/lines 50-64, and thereby balancing workload (Gehr: load balancing col 5/lines 62-col 6/line 15).

Regarding claim 30, this claim is substantially the same as claim 39, same rationale of rejection is applicable.

Regarding claim 31, wherein the list is based at least in part on loading conditions at the one or more available service providers (Gehr: list based on load balancing see col 6/lines 6-15, list identifies server availability as load varies col 9/lines 39-46, identify service providers including alternate servers based on load balancing col 8/lines 59-col 9/line 11, updated list is sent to the client see col 4/lines 25-34).

Regarding claims 32-37, this claim is substantially the same as claims 40-45, therefore same rationale of rejection is applicable.

Regarding claims 20-28, these claims are substantially the same as 29-37, therefore same rationale of rejection is applicable.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-19 and 2-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over GEHR in view of Baker et. al. U.S. Patent No. 5,678,041 (referred to as Baker hereafter), (IDS filed 3/31/03).

Regarding claim 11, comprises limitation substantially the same as those discussed on claims 38 and 29, same rationale of rejection is applicable. Gehr teaches a server system (Fig. 1) comprising:

a plurality of remote service providers (S1-s4) accessible to a plurality of client systems (C1-C11) through a network (N1,N2), method of improving access to any of one or more services provided by the plurality of remote service providers (Gehr: col 2/lines 27-35), the method comprising steps for:

at a log-in service, receiving access request from a client system (Gehr: receiving at a server service access request see col 4/lines 41-64);

generating a list of one or more services that can be accessed by the client system (create list see col 3/lines 17-26 and create/update list see col 5/lines 63-col 6/line 11);

wherein the list of one or more services comprises one or more available service providers for the list of one or more services so that if an available service provider for a requested service becomes unavailable, the client system can look to any other available service provider that is listed for the requested service (Gehr: traversing list for alternate server if primary server fails se col 4/lines 50-64, using list if primary serve becomes unavailable see col 6/lines 16-45, use alternate server from list upon failure see col 6/lines 59-col 7/line 16 and 35-38); and

downloading to the client system the list of one or more services and the one or more available service providers for the list of one or more services so that the client system can use the downloaded list of one or more services in accessing the requested service (Gehr: populate client with list, i.e. downloading see col 4/lines 25-34, writing entries of list in client, i.e. downloading see col 9/lines 39-46, using list to access available services see col 4/lines 50-64); however Gehr is silent in regards to validating the request received from the client system;

Baker teaches a system/method related to controlling the access to a plurality of services from the client systems (see abstract, col 1/lines 14-46), including permitting a particular client system access to identifies service if the particular client system has specific permission, (col 3/lines 24-27), wherein the identity of the requesting client system is validated and upon clearance access is permitted (see col 4/lines 18-35, clearance to client system or client user see col 5/lines 54-65); also including sending to the particular client system, created list of services available for that particular client (see col 4/lines 18-37 and col 2/lines 30-34).

It would have been obvious to one ordinary skilled in the art at the time the invention was made given Gehr suggestion of receiving requests from a plurality of client system in a client-server environment including a LAN network or proprietary SAN environments to look at the teachings of Baker for controlling access to data storages. One ordinary skilled would be motivated to include client system clearance procedures for restricting access to specific services, including an clearance-identification mechanism the identifies the user and the user's terminal, allowing access or denying, and providing a list of services e.g. URLs, already in Gehr's system, further as a function of this clearance-identification mechanism.

Regarding claim 12, this claim is substantially the same as claim 39, therefore same rationale of rejection is applicable.

Regarding claims 13-16, this claim is substantially the same as claims 41-43, therefore same rationale of rejection is applicable.

Regarding claim 17-19, these claims are substantially the same as claims 43-45 discussed above, therefore same rationale of rejection is applicable.

Regarding claims 2-10, these claims are substantially the same as claims 11-19, therefore same rationale of rejection is applicable.

**Pertinent Prior Art:**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; pertinence is presented in accordance with MPEP§ 707.05. Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):



A. U.S. Patent No. 5,862,348 (01-1999)

Pedersen teaches a system including plurality of service providers (server nodes) accessible to a plurality of client systems (client nodes) via a coupling communication link, the system including means for creating a list of identified available services corresponding to each server and using said list to provide client system access to said identified available services. The available server(s) is identified based on the server(s) load levels. The server node includes a list of network address and load information corresponding to each of the server nodes. Upon a client request to the server, the server using the information on the list returns the address of the request service bases on the load information. The information about each server includes server name, the network address, the cluster name, the network transport protocol, the total number of nodes, the ports available, the number of user permitted to connect to each server and the server load.

B. U.S. Patent No. 5,826,085 (10-1998)

Bennett et. al. teach a plurality of service providers conventional text server for persistent storage and retrieval of user system and business information and a plurality of client system including receiving requests from a client application, a network interface for sending and receiving messages related to the client application requests via the network, a database interface for storing and querying information related to the client application requests, and an on-line service interface for interacting with a particular network accessible service having a specific service protocol, the service having resources necessary to respond to the client application requests. As the system loads change, the distributed server execution framework automatically tunes the system by increasing or decreasing the number of servers available to service requests, thereby automatically shifting system resources to the areas where they are needed based on usage.

C. Designing large electronic systems, Hilal, et. al., 8th International Conference on Distributed Computing Systems, Washington, DC, IEEE Computer Society Press (ISBN: 0-8186-0865-X), June 1988, pages 402-409.

Hilal et. al. teach the applicability of load balancing techniques to E-mail servers including algorithms for load balancing among mail servers, system reconfiguration. Disclosing mail systems with limited location-independent access, which allow users to access them from one primary location and a number of secondary locations, which can also be used, in mass distribution of electronic mail. Also disclosing generating a list of one mail server providing email services that can be accessed by the

client system so that if an available service provider for a requested service becomes unavailable, the client system can look to any other available service provider that is listed for the requested service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, David Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this action should be mailed to:

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or faxed to the Central Fax Office:

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Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Fourth Floor (Receptionist), further ensuring that a receipt is provided stamped "TC 2100".



B. Prieto  
TC 2100  
Patent Examiner  
November 15, 2003